

IN THE CLAIMS:

Please cancel Claims 2, 9 and 16 to 20 without prejudice or disclaimer of subject matter. Please amend the remaining claims as follows:

1. (Currently Amended) A method of recognizing at least one object in a digitized representation of an image, comprising the steps of:

receiving the digitized representation of the image, the representation having a first resolution;

creating a reduced-resolution version of the image responsive to the digitized representation of the image, the reduced-resolution version of the image having a second resolution lower than the first resolution; and

providing a plurality of sets of initial conditions, the initial conditions including at least a condition for recognition-processing of the image;

for each of the sets of individual conditions, identifying a value of each of at least one recognition initial condition responsive to at least a portion of a confidence level of the recognition by recognition-processing the reduced resolution version of the image having the second resolution; and

selecting at least one set from the plurality of sets of initial conditions based on each confidence level in said identifying step; and

recognizing the ~~at least one object~~ objects represented in the digitized representation of the image ~~responsive to the value of each of the at least one recognition~~

~~initial condition identified~~ having the first resolution based on the set of initial conditions selected in said selecting step.

2. (Cancelled)

3. (Currently Amended) The method ~~of claim 2~~ according to Claim 1, wherein the said selecting step selects one from the plurality of sets of ~~comprises selecting~~ a value of each of at least one initial condition corresponding to conditions based on a highest confidence level from a plurality of the confidence levels identified in said identifying step.

4. (Currently Amended) The method ~~of claim 2~~ according to Claim 2, wherein the said selecting step ~~comprises selecting a value of each of~~ selects at least one set from the plurality of sets of initial condition corresponding to conditions based on a confidence level exceeding a threshold.

5. (Currently Amended) The method ~~of claim 1~~ according to Claim 1, wherein the said creating step ~~comprises~~ creates the reduced resolution version of the image by calculating an average of at least one value of a plurality of pixels of the digitized representation of the image having the first resolution.

6. (Currently Amended) The method ~~of claim 1~~ according to Claim 1, additionally comprising the step of recognizing at least one additional object represented in the digitized representation of the image, responsive to the value of at least one ~~recognition~~ initial condition identified responsive to a confidence level exceeding a threshold.

7. (Currently Amended) The method ~~of claim 1~~ according to Claim 1, additionally comprising the steps of:

attempting to recognize at least one additional object represented in the digitized representation of the image, responsive to the value of at least one ~~recognition~~ initial condition identified, the attempting step comprising the step of producing a confidence level of the attempt; and

responsive to the confidence level of the attempt below a threshold:

repeating the identifying step; and

recognizing the at least one object represented in the digitized representation of the image responsive to the value of each of the at least one ~~recognition~~ initial condition identified during the repeating step.

8. (Currently Amended) A computer program product comprising a computer useable medium having computer readable program code embodied therein for recognizing at least one object in a digitized representation of an image, the computer program product comprising:

computer readable program code devices configured to cause a computer to receive the digitized representation of the image, the representation having a first resolution;

computer readable program code devices configured to cause a computer to create a reduced-resolution version of the image responsive to the digitized representation of the image, the reduced-resolution version of the image having a second resolution lower than the first resolution; and

computer readable program code devices configured to cause a computer to provide a plurality of sets of initial conditions, the initial conditions including at least a condition for recognition-processing of the image;

for each of the sets of initial conditions, computer readable program code devices configured to identify a value of each of at least one recognition initial condition responsive to at least a portion of confidence level of recognition by recognition-processing the reduced resolution version of the image having the second resolution; and

computer readable program code devices configured to select at least one set from the plurality of sets of initial conditions based on each confidence level identified; and

computer readable program code devices configured to cause a computer to recognize the ~~at least one object~~ objects represented in the digitized representation of the image ~~responsive to the value of each of the at least one recognition~~ having the first resolution based on the set of initial condition identified conditions selected.

9 (Cancelled)

10. (Currently Amended) The computer program product ~~of claim 9~~ according to Claim 8, wherein the computer readable program code devices configured to cause a computer to select one set from the plurality of sets of ~~comprise computer readable program code devices configured to cause a computer to select a value of each of at least one initial condition corresponding to~~ conditions based on a highest confidence level from a plurality of the confidence levels identified.

92 11. (Currently Amended) The computer program product ~~of claim 9~~ according to Claim 8, wherein the computer readable program code devices configured to cause a computer to select ~~comprise computer readable program code devices configured to cause a computer to select a value of each of~~ selects at least one set from the plurality of sets of ~~initial condition corresponding to a~~ conditions based on a confidence level exceeding a threshold.

12. (Currently Amended) The computer program product ~~of claim 8~~ according to Claim 8, wherein the computer readable program code devices configured to cause a computer to ~~creating~~ create a reduced resolution version of the image creates by calculating ~~comprise computer readable program code devices configured to cause a computer to calculate an average of at least one value of a plurality of pixels of the digitized representation of the image~~ having the first resolution.

13. (Currently Amended) The computer program product of ~~claim 8~~
~~according to Claim 8~~, additionally ~~comprising~~ comprises computer readable program code
devices configured to cause a computer to recognize at least one additional object
represented in the digitized representation of the image, responsive to the value of at least
one ~~recognition~~ initial condition identified responsive to a confidence level exceeding a
threshold.

14. (Currently Amended) The computer program product of ~~claim 8~~
according to Claim 8, additionally ~~comprising~~ comprises:

computer readable program code devices configured to cause a computer to
attempt to recognize at least one additional object represented in the digitized
representation of the image, responsive to the value of at least one ~~recognition~~ initial
condition identified, the computer readable program code devices configured to cause a
computer to attempt comprising computer readable program code devices configured to
cause a computer to produce a confidence level of the attempt; and

computer readable program code devices configured to cause a computer to,
responsive to the confidence level of the attempt below a threshold:

repeat the identifying step; and

recognize the at least one object represented in the digitized
representation of the image responsive to the value of each of the at least one
~~recognition~~ initial condition identified during operation of the computer readable
program code devices configured to cause a computer to repeat.

15. (Currently Amended) A system for recognizing objects, the system comprising:

a downsampler having an input ~~coupled to a system input~~ ~~operatively coupled~~ for receiving a representation of an image having a first resolution, the downsampler for producing and providing at an output thereof a reduced-resolution version of the image responsive to the representation of the image received at the downsampler input, the reduced resolution version of the image having a second resolution lower than the first resolution; and

92 a recognition engine having a first input coupled to the downsampler output for receiving the reduced-resolution version of the image and a second input ~~coupled to the system input~~ for receiving the representation of the image, the recognition engine for recognizing at least one object in the digitized representation of the image by a method comprising the steps of:

~~at least attempting to recognize at least one first object in the reduced resolution version of the image received at the first input, at least one time;~~
~~recognizing at least one second object in the representation of the image received at the second input; and~~

providing a representation of the ~~at least one object recognized at a first output coupled to a system output~~ plurality of sets of initial conditions, the initial conditions including at least a condition for recognition-processing of the image;

for each of the sets of initial conditions, identifying a confidence level of recognition by recognition-processing the reduced resolution version of the image having the second resolution;

selecting at least one set from the plurality of sets of initial conditions based on each confidence level identified in said identifying step; and
regognizing the objects represented in the digitized representation of the image having the first resolution based on the set of initial conditions selected in said selecting step.

A2

16. to 20. (Cancelled)

Please add Claims 21 to 23, as follows:

21. (New) The method according to Claim 1, wherein the set of initial condition includes at least one of a threshold grayscale value, a determination of skew correction and a determination of type of object.

22. (New) The computer program according to Claim 8, wherein the set of initial condition includes at least one of a threshold grayscale value, a determination of skew correction and a determination of type of object.

92 23. (New) The system according to Claim 15, wherein the set of initial condition includes at least one of a threshold grayscale value, a determination of skew correction and a determination of type of object.
